The Big Dig
new greenspace for The City of Boston

CRP 384
Professor Stephan Schmidt
by
Chris Verrick
Introduction: The Big Dig was a massive highway project in Boston, MA with extensive goals. The project was the largest public construction project in the United States. Its initial budget of 2.8 billion dollars swelled to 14.6 billion by its completion in 2004. Current estimates including interest give a final cost of 22 billion dollars, which will not be paid off until 2038. At its peak 5,000 people were working on it and 3 million dollars were spent on it per day. As is indicated by the enormous cost overruns the project struggled to maintain deadlines and was rife with corruption and extortion. Recent lawsuits have resulted in Bechtel Corporation, the primary contractor, paying back over 400 million dollars and several smaller contractors paying back over 50 million dollars. While a highway construction project, its primary advocate, Frederick Salvucci, designed it to prioritize greenspace and walkability; socially reconnect sections of the city and improve public transit. While the highway projects will be explained, the goal of this paper is to look at the secondary initiatives of Salvucci and determine if they were achieved, whether they were completed as initially planned and if not what the reasons were for the changes. These issues will be addressed by looking through several case studies, including: the Rose Kennedy Greenway; Spectacle Island; West Roxbury’s Millenium Park; and the waterfront park connections.

The Central Artery: In the middle of the 1900’s Boston’s status as a major economic center was faltering. The city had been subject to several destructive transportation projects and was “depressed by lack of investment.”¹ John Hynes, elected mayor in 1950, set into motion projects intended to re-establish Boston as a premier city, including the construction of the Massachusetts Turnpike, the Prudential Center (Boston’s first skyscraper), and the new Central Artery.² The artery was intended to alleviate the traffic that packed the roads of city, and serve as part of an “integrated highway network resembling a gigantic wheel—its hub the Central Artery and the proposed Inner Belt Route.”³ Like many of the highway projects of its day it claimed eminent domain and destroyed over 100 residences and 900 businesses in its path. From the beginning of its construction residents disliked the elevated green highway. The artery physically separated the North End from the rest of the city, furthermore it was plagued by traffic issues. It featured 34 poorly designed entrance and exit ramps, accounting for more mileage than the artery itself, that resulted in an accident rate four times the national average.⁴ By 1990 traffic jams on the artery were reaching 10 hours per day and jams of 16 hours were predicted by 2010.⁵ This and other destructive roadway projects produced a grass roots “people before highways” movement in Boston.⁶

Frederick Salvucci: Salvucci, an advocate of efficiency and public transportation who said “highways… destroy something far more difficult to replace,” was well aware of the destructive and isolating nature of construction projects in Boston.⁷ As the director of the East Boston City Hall he had experienced first hand several rounds of destruction of parklands by the city to build and expand Logan Airport.⁸ He “was committed to a coherent urban transportation planning idea… rooted in the importance of a modern, clean, safe, efficient public transportation...
In 1975 Michael Dukakis, a leader of the “people before highways” movement, was elected governor and instated Salvucci as the head of the Massachusetts Transit Authority. In this role he began the plan that would become the Big Dig, directed the reconstruction and expansion of the Red Line, and rebuilt the Orange Line, two train lines that are still in use today.

Unlikely Supporters: That Salvucci developed the biggest highway construction project in the United States seems to contradict everything that he stood for, however the situation was dire and something had to be done to alleviate both the social and physical problems caused by the Central Artery. In 1975 there was already heavy pressure from business interests to construct a third harbor tunnel that would provide direct access to the airport. Initial plans were shortsighted and Salvucci saw they had the potential to do further harm to the East Boston community. This along with the Central Artery problems spurred Salvucci to action. He conceived of the idea of putting the artery underground in 1975, but initially dismissed as an impossible undertaking. However he continued with the project and for the next 7 years he garnered support for it, and he gained approval by the state in 1982. Ground was finally broken on the project in 1992, and the finalized project dealt with three major projects: public transportation Projects; highway projects; and greenspace projects.

Public Transportation Projects: While the Big Dig addressed public transportation, the primary purpose of this paper was to look at greenspaces, so public transit is only briefly covered. The Silver Line, the cities only Bus Rapid Transit line, was added as part of the Big Dig. The line has dedicated lanes in both tunnels and surface roads and connects Roxbury to South Station, and South Station to Logan Airport.
The Highway Projects 14:

The Ted Williams Tunnel: The 1.6-mile tunnel beneath the Boston Harbor, finished December 15, 1995, was the first completed project. It was finished on schedule and within budget.

The I-90 Extension: The extension, completed in January 2003, brought the Massachusetts Turnpike underneath the Fort Point Channel and South Boston before connecting to the Ted Williams tunnel. It was essential to advance the development of the Boston Seaport and the newly constructed Massachusetts Convention Center.


Leonard P. Zakim bunker Hill Bridge: This bridge replaced a dilapidated six lane double-decker bridge that was demolished in Spring 2004. The first lanes were opened in 2003 and all ten lanes were opened by 2005. It is now one of the centerpieces of the Boston skyline, and is the widest cable-stayed bridge in the world.

Storrow Drive Connector Tunnel and Bridge: This 4 lane tunnel and bridge, completed in 1999, runs parallel to the Zakim Bridge and carries traffic to and from Sturrow Drive and Leverett Circle.
Greenspace Case Studies: The following is a brief look into four of the greenspaces created by the Big Dig, which, combined provide a general picture of the status of planned greenspace projects.

Rose Kennedy Greenway: The Greenway, arguably the most important greenspace because of its potential impact, is 26 acres in the heart of the city. One of the projects on the Greenway was a 70 million dollar Garden Under Glass. It was headed by the Massachusetts Horticulture Society, which was given 3 lots totaling 4 acres to design. However due to several issues including: financial difficulties within the society, reluctance from private investors, and promised, but not received state-funding, the project was scrapped in 2003. Recently the society, which is still in charge of the parcels, had to layoff half its staff. However soon the responsibility for the parcels will be handed over to the conservancy formed to oversee the entire greenway. A July 2008 Boston Globe article discussed the various projects on the Greenway and their current status. Their conclusion, shared by several local architectural professionals was that the area is underdeveloped and currently is more of an enlarged median strip than a public park. More facilities such as bathrooms, sitting areas, cafes, and more protection from the busy roads on either side of it are necessary. The graphic describes each portion of the Greenway and provides a good overall picture of its current status.
Spectacle Island: This island in Boston Harbor was formerly a horse-rendering facility and then a landfill. After nearly 15 years of environmental cleanup and receiving 3.5 million cubic yards of excavated material from various Big Dig projects it has been converted into a 105 acre recreational area featuring 2,400 trees, 26,000 shrubs, a marina, a visitors center, 5 miles of hiking trails, and two beaches. The visitor’s center and all the facilities on the island are powered by solar panels.

West Roxbury, Millennium Park: This park is another example of using excavated Big Dig material to cap a landfill. The project created 100 acres of greenspace that feature paved trails, baseball and soccer fields, picnic facilities and a canoe launch onto the Charles River. As its name would suggest the project was planned to finish in 2000, and it opened on schedule. While West Roxbury was technically annexed, and made part of, the City of Boston, the acreage of this and other Big Dig related projects in Boston’s neighboring towns are not included in the often quoted 300 acres of greenspace.

Waterfront Rejuvenation: An essential part of the plan was that there would be pedestrian connections between all of the waterfront greenspaces. However when the project was officially finished in 2004 only half of the six linkages had been constructed. Finally, in 2009 the state has claimed it has the funding to finish the project, which will allow “Bostonians to walk, jog and bike from Watertown to Charlestown to South Boston without leaving the water’s edge.” However citizens familiar with the plan are only cautiously optimistic, as past promises of funding have not materialized.
Conclusion: The infill projects that took excavated material from the Big Dig were highly successful because they were closely tied with construction. The material had to be removed, and it had to be moved somewhere, the closer the better. However the creation of other greenspaces, such as the Greenway and the waterfront, that were reliant on funding for development, are currently in a much lower state of completion. Massive cost overruns by the highway construction projects meant that the state either siphoned funds from the projects, which were seen as non-essential, or just couldn’t afford to complete them. As has been frequently noted, the creation of parks is often a long-term process, guided by the needs and interests of its constituency. There is no doubt that current economic difficulties have also slowed the progress of these greenspaces. Based on the slow, but measurable progress that these spaces have seen from the completion of the Big Dig in 2004 to 2009, the outlook is highly favorable. The two before and after pictures of the Central Artery and the Greenway make it clear, that despite all of the corruption, extortion, and political maneuvering that came with the Big Dig, the City of Boston has been permanently changed in a monumentally positive way.

Research Methodology: Considering its status as the largest public construction project in the United States, there are surprisingly few printed resources on Boston’s Big Dig. In fact the Massachusetts State Transit website on the Big Dig lists only 8 books in its resources section, 3 of which are primarily photographic and 2 of which only feature the Big Dig as sections of the book. Due to this, newspaper articles provided the best information about progress and planning changes, especially in regards to the development of greenspaces. The Boston Globe created a website dedicated to the Big Dig, and specifically its greenspaces. The site and its articles feature animations and diagrams that offer superb insight into the successes and failures of the project, and clearly explain it visually. James A. Aloisi, Jr., who was Assistant Transportation Secretary in the late 1980’s and General Counsel to the Mass. Turnpike Authority from 1989 to 1996, published what is currently the only history of the Big Dig, and as such it served as a primary reference.
Endnotes)
2 ibid p 6
3 ibid p 7
4 ibid p 8
6 Aloisi p 9
7 ibid p 9
8 ibid p 9
9 ibid p 13
10 ibid p 15
11 ibid p 15
12 ibid p 15
16 ibid
18 Aloisi p 32
22 Ibid

Bibliography:


Lewis, Diane E. “Big Dig jobs are nearing end of road: completion will mean less work for unions.” Boston Globe August 19, 2004.


